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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference ...	FOR FURTHER ACTION		See Form PCT/PEA416
International application No. PCT/BE2004/000112	International filing date (day/month/year) 04.08.2004	Priority date (day/month/year) 08.08.2003	
International Patent Classification (IPC) or national classification and IPC A61F556			
Applicant NELISSEN, Jozef Frans			
<p>1. This report is the International preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 3 sheets, as follows:</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 20px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 08.06.2005		Date of completion of this report 07.11.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Germano, A Telephone No. +31 70 340-4202	



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INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITYInternational application No.
PCT/BE2004/000112

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements* of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-8 as originally filed

Claims, Numbers

1-11 filed with telefax on 08.06.2005

Drawings, Sheets

1/6-6/6 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☒ the claims, Nos. 12
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	1-11
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

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**INTERNATIONAL PRELIMINARY
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Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. The document US-A-5 868 138, see figs 3,7,9-12 and col. 5, line 52 to col. 6, line 27, is regarded as being the closest prior art to the subject-matter of claim 1, and shows (the references in parentheses applying to this document, the wording corresponds to the wording of claim 1):

"a device for treating breathing problems (20), comprising a shaped part (32) fitting onto the teeth of the lower jaw, a shaped part (28) fitting onto the teeth of the upper jaw, and adjustable connecting means (40) between the upper (28) and lower (32) shaped part for forward/backward (apertures 68, see fig.7) and upward/downward (stylus 46, see fig 7 and description, col. 6, lines 28-30, fig. 11 etc.) adjustment of the upper shaped part (28) relative to the lower shaped part (32), wherein one of the shaped parts (28) is provided at the front with a slide mechanism (48) consisting of a slide element (48) which is slidable laterally to a limited extent along a guide element (50), and that the adjustable connecting means (40) are fixedly connected to the other shaped part (28) on one side (thread 46) and to the slide element (50) on the other (48).

- 1.1 The subject-matter of the claim differs from this disclosure in that the adjustable connecting means comprise a horizontal adjusting screw for forward/backward adjustment of the one shaped part relative to the other, which horizontal adjusting screw coacts on one other end with a threaded passage mounted on the slide element, said screw being connected by means of a connecting piece with the adjustable connection means for the upward/downward adjustment.

In view of said difference the subject-matter of claim 1 is new and meets the requirements of Art. 33(2) PCT.

- 1.2 The above mentioned features in combination permit the precise adjustment of the device in both the forward/backward and upward/downward direction.
This combination of features does not appear to be fairly disclosed for the same purpose in the available prior art.

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- Therefore claim 1 involves an inventive step and meets the requirements of Art. 33(3) PCT.
- 1.3 The device described in claim 1 is industrially manufacturable. Therefore claim 1 meets the requirements of Art. 33(4) PCT as well.
2. Claims 2 to 11 depend from claim 1 and in view of that and insofar as claim 2 can be understood (see Item VIII) meet the requirements of Art. 33(2), (3) and (4) PCT.

Re Item VII**Certain defects in the international application**

3. Contrary to the requirements of Rule 5.1(a)(ii), the description does not acknowledge the document disclosing the closest prior art (see US-A-5 868 138) and briefly resume it.
4. The description should disclose the invention as claimed. Therefore the application does not comply with the requirements of Rule 5.1(a)(ii)

Re Item VIII**Certain observations on the international application**

5. The wording of claim 2 is not clear, Art. 6 PCT. In particular the meaning of the references "closely sized" is ambiguous. The relative terms of said reference do not define a technical limitation of the subject-matter of the claim.
6. Claim 4 refers to a feature of claim 3 which is not defined in the previous claims 1 and 2. Thus claim 4 could only be appendant to claim 3 and not to claims 1 and 2. This inaccuracy involves a lack of clarity, Art. 6 PCT. Moreover the reference "...is chosen as a function of the desired maximum lateral displacement" does not give any clear technical delimitation as regards the length of the hollow tube

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International application PCT/ BE2004/000112
 enclosure to letter dated 23-05-2005

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CLAIMS

1. Device for treating breathing problems, comprising a shaped part (2) fitting onto the teeth of the lower jaw, a shaped part (1) fitting onto the teeth of the upper jaw, and adjustable connecting means between the upper and lower shaped part for forward/backward (P2) and upward/downward (P1) adjustment of the upper shaped part relative to the lower shaped part, wherein one of the shaped parts is provided at the front with a slide mechanism consisting of a slide element (8) which is slidable laterally to a limited extent along a guide element (9), and that the adjustable connecting means are fixedly connected to the other shaped part on one side and to the slide element (8) on the other, characterized in that the adjustable connecting means comprise a horizontal adjusting screw (6) for forward/backward (P2) adjustment of the one shaped part relative to the other, which horizontal adjusting screw contacts on one outer end with a threaded passage (7) (mounted on the slide element (8)) said screw being connected by means of a connecting piece (14) with the adjustable connection means for the upward/downward adjustment.

2. Device as claimed in claim 1, characterized in that the dimensions of the guide element (9) and the slide element (8) are closely-sized transversely of the guiding direction.

3. Device as claimed in either of the foregoing claims, characterized in that the guide element is a rod mounted between two points of the one shaped part, and the slide element is a hollow tube slidable around this rod.

4. Device as claimed in any of the foregoing claims, characterized in that the length of the hollow tube is chosen as a function of the desired maximum lateral displacement.

5. Device as claimed in claim 4, characterized in that

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the slide element can be snapped onto the guide element.

6. Device as claimed in any of the foregoing claims, characterized in that the adjustable connecting means comprise a substantially vertical adjusting screw (4) with double screw thread for upward/downward adjustment (P1) of the upper shaped part relative to the lower shaped part, which adjusting screw co-acts on one outer end with a first threaded bore (13) connected via the connecting piece (14) to the slide element, and which co-acts on its other outer end with a second threaded (13') bore provided on the front side of the other shaped part, wherein a rotation of the adjusting screw changes the distance between the lower and upper threaded bores.

7. Device as claimed in claim 6, characterized in that the adjusting screw (4) is provided substantially in the middle with an encircling flange (15) with radially directed openings (10) in which a rod (12) fits for the purpose of turning the adjusting screw through rotation of the rod.

8. Device as claimed in claim 6 or 7, characterized in that the vertical adjusting screw is enclosed on both sides by telescopically acting tubes (15, 16).

9. Device as claimed in any of the claims 1-5, characterized in that the adjustable connecting means comprise a substantially vertical adjusting screw and a threaded bore co-acting therewith for the upward/downward adjustment of the upper shaped part relative to the lower shaped part.

10. Device as claimed in any of the claims 6-8, characterized in that the horizontal adjusting screw is provided on its other outer end with a screw head (11), and that the connecting piece (8) is provided with a horizontally oriented hole through which the horizontal adjusting screw extends.

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11. Device as claimed in any of the foregoing claims, characterized in that the adjustable connecting means are at least partially received in a housing which is rounded on the outside.

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